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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/932,140	08/17/2001	Brian Eric Bakke	IBM / 178	5139

7590 01/25/2008
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EXAMINER
MANOSKEY, JOSEPH D

ART UNIT	PAPER NUMBER
2113	

MAIL DATE	DELIVERY MODE
01/25/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/932,140

Applicant(s)

BAKKE ET AL.

Examiner

Joseph D. Manoskey

Art Unit

2113

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 July 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Erickson et al., U.S. Patent 6,408,343, hereinafter referred to as "Erickson" in view of Conseil, U.S. Patent 5,964,887.
3. Referring to claim 1, Erickson teaches multiple adapters connected to disk drives, this is interpreted as an apparatus comprising a plurality of access adapters, each adapter configured to interface with an electronic resource (See Erickson, Fig. 6, Col. 4, lines 25-39, Col. 5, lines 54-67 and Col. 8, lines 42-48). Erickson discloses a master adapter failing over to a redundant adapter, where the adapters are hot-swappable and connect to external hosts, this is interpreted as at least one shareable spare adapter configured to function as a network interface that removably couples with the electronic resource (See Erickson, Fig. 6, Col. 4, lines 32-35, and Col. 5, lines 10-12). Erickson teaches the adapters automatically self configure and failover to redundant adapters. The adapters contain a SCSI enclosure processor, SEP, which

detects the failures, this is interpreted as control circuitry configured to initiate a substitution of the shareable spare adapter for any of the plurality of access adapters to supplant a substituted access adapter without intervention by any server in electronic communication with the electronic resources (See Erickson, Fig. 6, Col. 2, lines 63-65, Col. 4, lines 32-36, and Col. 6, lines 39-53).

Erikson does not teach assign a correlation token to each of the plurality of access adapters, each correlation token for use in connection with accessing an electronic resource via the access adapter to which such correlation token is assigned, and wherein the control circuitry is configured to initiate a substitution of the shareable spare adapter for the substituted access adapter by reassigning the correlation token assigned to the substituted access adapter to the shareable space adapter, however Erickson does teach failover of the adapters using a state transition diagram, where one state is standby and another is active (See Fig. 9, and Col. 6, lines 54-61). Conseil teaches the use of a token stored to a station where one is present and the other absent. Upon the one station becoming non-operation, and therefore unable to access its resources, the other station changes its token from "absent" to "present", thus the token is passed and the other station can perform operations of the non-operational station (See Conseil, Col. 1, lines 39-67). It would be obvious to one of ordinary skill in the art at the time of the invention to combine the token passing of Conseil with the failover of adapters of Erickson. This would be obvious to one of ordinary skill in the art at the time of the invention to do because provides transparent manner of switch to a back-up (See Conseil, Col. 1, lines 26-30).

4. Referring to claim 2, Erickson and Conseil teach all the limitations (See rejection of claim 1) including the SEP begins the failover when a failure is detected, this is interpreted as wherein the control circuitry initiates the substitution in response to an event (See Erickson, Fig. 8, and Col. 6, lines 38-53).

5. Referring to claim 3, Erickson and Conseil disclose all the limitations (See rejection of claim 2) including the SEP detection mechanisms maintaining periodic communication, this is interpreted as wherein the control circuitry initiates monitoring of the event (See Fig. 8 and 9, and Col. 6, lines 62-64).

6. Referring to claim 4, Erickson and Conseil teach all the limitations (See rejection of claim 2) including the SEP of the redundant adapter becoming active because of the failure of the master adapter, this is interpreted as wherein the control circuitry initiates notification procedures regarding the event (See Erickson, Fig. 8 and 9, Col. 6, lines 57-60).

7. Referring to claim 5, Erickson and Conseil disclose all the limitations (See rejection of claim 2) including the SEP detection mechanisms maintaining periodic communication such as a ping, this is interpreted as wherein the event includes a change in a heartbeat signal transmitted by an access adapter (See Erickson, Fig. 6 and Col. 6, lines 62-65).

8. Referring to claim 6, Erickson and Conseil disclose all the limitations (See rejection of claim 2) including the SEP detection mechanisms maintaining periodic communication such as a ping, this is interpreted as wherein the control circuitry initiates monitoring a process that monitors the event (See Erickson, Fig. 6 and Col. 6, lines 62-65).

9. Referring to claim 7, Erickson and Conseil teach all the limitations (See rejection of claim 1) including the adapters having ports that connect to half of the disk drives, this interpreted as wherein a port of an access adapter of the plurality of access adapters interfaces with only a subset of the electronic resource (See Erickson, Fig. 6).

10. Referring to claim 8, Erickson and Conseil teach all the limitations (See rejection of claim 1) including the insertion of an adapter causing a configuration and setting the SEP in standby mode, this is interpreted as wherein the control circuitry initiates a reconfiguration of an access adapter into a second shareable spare adapter (See Erickson, Col. 8, lines 9-13).

11. Referring to claim 9, Erickson and Conseil teach all the limitations (See rejection of claim 1) including for removal of a correlation token from the access adapter, however Erickson does failover of the adapters using a state transition diagram, where one state is standby and another is active (See Fig. 9, and Col. 6, lines 54-61). Conseil

teaches a system where a failed active station is switched over to a back-up station (See Col. 1, lines 15-18). Conseil discloses this being done with an identifier or "token", which includes an absent state, thus the token being removed (See Col. 1, lines 46-61).

12. Referring to claim 10, Erickson and Conseil teach all the limitations (See rejection of claim 9) including passing the token to the spare or back-up adapter. Conseil teaches using the token to pass the identity to the back-up, this is interpreted as passing the token to the spare adapter (See Col. 1, lines 15-17 and 46-49).

13. Referring to claim 11, Erickson and Conseil teach all the limitations (See rejection of claim 9) including the evaluation of the correlation token. Conseil discloses a station becoming operational if it is determined if the token is present, this is interpreted as evaluating the token (See Col. 1, lines 65-67).

14. Referring to claim 12, Erickson and Conseil disclose all the limitations (See rejection of claim 1) including the failover of a master adapter to a redundant adapter and the adapters being hot-swappable, this is interpreted as wherein the control circuitry initiates a replacement of an access adapter (See Erickson, Col. 4, lines 32-36).

15. Referring to claim 13, Erickson and Conseil teach all the limitations (See rejection of claim 1) including the insertion of an adapter causing a configuration and

setting the SEP in standby mode, this is interpreted as wherein the control circuitry initiates a disablement of the shareable spare adapter (See Erickson, Col. 8, lines 9-13).

16. Referring to claim 14, Erickson and Conseil disclose all the limitations (See rejection of claim 1) including the master adapter failing over to a secondary adapter, this is interpreted as wherein the control circuitry initiates disabling an access adapter (See Erickson, Col. 4, lines 32-36).

17. Referring to claim 15, Erickson teaches multiple adapters connected to disk drives, this is interpreted as a method of providing access to a computer resource, wherein a plurality of access adapters each interface with the computer resource (See Erickson, Fig. 6, Col. 4, lines 25-39, Col. 5, lines 54-67 and Col. 8, lines 42-48). Erickson discloses a master adapter failing over to a redundant adapter, where the adapters are hot-swappable and connect to external hosts, this is interpreted as the method comprising using a shareable spare adapter configured to function as a network interface that removably couples with the computer resource and to supplant an interface provided by a first adapter of the plurality of access adapters (See Erickson, Fig. 6, Col. 4, lines 32-35, and Col. 5, lines 10-12). Erickson teaches the adapters automatically self configure and failover to redundant adapters. The adapters contain a SCSI enclosure processor, SEP, which detects the failures and the including a plurality of access adapters, this is interpreted wherein the shareable spare adapter is additionally configured to supplant a second interface provided by a second access

adapter of the plurality of access adapters without intervention by any server in electronic communication with the computer resource (See Erickson, Fig. 6, Col. 2, lines 63-65, Col. 4, lines 32-36, Col. 6, lines 39-53 and Col. 8, lines 42-48).

Erikson does not the method further comprising assigning a correlation token to each of the plurality of access adapters, each correlation token for use in connection with accessing the computer resource via the access adapter to which such correlation token is assigned, wherein using the shareable spare adapter to supplant the interface provided by the first adapter includes reassigning the correlation token assigned to the first access adapter to the shareable spare adapter, however Erickson does teach failover of the adapters using a state transition diagram, where one state is standby and another is active (See Fig. 9, and Col. 6, lines 54-61). Conseil teaches the use of a token stored to a station where one is present and the other absent. Upon the one station becoming non-operation, and therefore unable to access its resources, the other station changes its token from "absent" to "present", thus the token is passed and the other station can perform operations of the non-operational station (See Conseil, Col. 1, lines 39-67). It would be obvious to one of ordinary skill in the art at the time of the invention to combine the token passing of Conseil with the failover of adapters of Erickson. This would be obvious to one of ordinary skill in the art at the time of the invention to do because provides transparent manner of switch to a back-up (See Conseil, Col. 1, lines 26-30).

18. Referring to claim 16, Erickson and Conseil teach all the limitations (See rejection of claim 15) including include a plurality of access adapters, this is interpreted as wherein the shareable spare adapter is additionally configured to supplant a third interface provided by any of the plurality of access adapters (See Erickson, Col. 8, lines 42-48).

19. Referring to claim 17, Erickson and Conseil teach all the limitations (See rejection of claim 15) including the SEP begins the failover when a failure is detected, this is interpreted as further comprising supplanting the interface in response to an event (See Erickson, Fig. 8, and Col. 6, lines 38-53).

20. Referring to claim 18, Erickson and Conseil disclose all the limitations (See rejection of claim 17) including the SEP detection mechanisms maintaining periodic communication, this is interpreted as further comprising monitoring of the event (See Erickson, Fig. 8 and 9, and Col. 6, lines 62-64).

21. Referring to claim 19, Erickson and Conseil teach all the limitations (See rejection of claim 17) including the SEP of the redundant adapter becoming active because of the failure of the master adapter, this is interpreted as further comprising initiating notification procedures regarding the event (See Erickson, Fig. 8 and 9, Col. 6, lines 57-60).

22. Referring to claim 20, Erickson and Conseil disclose all the limitations (See rejection of claim 17) including the SEP detection mechanisms maintaining periodic communication such as a ping, this is interpreted as further comprising monitoring a process that monitors the event (See Erickson, Fig. 6 and Col. 6, lines 62-65).

23. Referring to claim 21, Erickson and Conseil teach all the limitations (See rejection of claim 15) including the insertion of an adapter causing a configuration and setting the SEP in standby mode, this is interpreted as further comprising reconfiguring the first access adapter into a second shareable spare adapter (See Erickson, Col. 8, lines 9-13).

24. Referring to claim 22, Erickson and Conseil teach all the limitations (See rejection of claim 15) including for removal of a correlation token from the access adapter, however Erickson does failover of the adapters using a state transition diagram, where one state is standby and another is active (See Fig. 9, and Col. 6, lines 54-61). Conseil teaches a system where a failed active station is switched over to a back-up station (See Col. 1, lines 15-18). Conseil discloses this being done with an identifier or "token", which includes an absent state, thus the token being removed (See Col. 1, lines 46-61).

25. Referring to claim 23, Erickson and Conseil teach all the limitations (See rejection of claim 22) including passing the token to the spare or back-up adapter.

Conseil teaches using the token to pass the identity to the back-up, this is interpreted as passing the token to the spare adapter (See Col. 1, lines 15-17 and 46-49).

26. Referring to claim 24, Erickson and Conseil teach all the limitations (See rejection of claim 22) including the evaluation of the correlation token. Conseil discloses a station becoming operational if it is determined if the token is present, this is interpreted as evaluating the token (See Col. 1, lines 65-67).

27. Referring to claim 25, Erickson and Conseil disclose all the limitations (See rejection of claim 15) including the failover of a master adapter to a redundant adapter and the adapters being hot-swappable, this is interpreted as further comprising replacing the second access adapter (See Erickson, Col. 4, lines 32-36).

28. Referring to claim 26, Erickson and Conseil teach all the limitations (See rejection of claim 15) including the insertion of an adapter causing a configuration and setting the SEP in standby mode, this is interpreted as further comprising disabling the shareable spare adapter (See Erickson, Col. 8, lines 9-13).

29. Referring to claim 27, Erickson and Conseil disclose all the limitations (See rejection of claim 15) including the master adapter failing over to a secondary adapter, this is interpreted as further comprising disabling the second access adapter (See Erickson, Col. 4, lines 32-36).

30. Referring to claim 28, Erickson and Conseil teach all the limitations (See rejection of claim 15) including the adapters having ports that connect to half of the disk drives, this interpreted as wherein each of the first and second adapters access a different subset of the computer resource (See Erickson, Fig. 6).

31. Referring to claim 29, Erickson teaches multiple adapters connected to disk drives, this is interpreted as a program product comprising a program for providing access to a computer resource, wherein a plurality of access adapters each interface with the computer resource (See Erickson, Fig. 6, Col. 4, lines 25-39, Col. 5, lines 54-67 and Col. 8, lines 42-48). Erickson discloses a master adapter failing over to a redundant adapter, where the adapters are hot-swappable and connect to external hosts, this is interpreted as the program configured to use a shareable spare adapter configured to function as a network interface that removably couples with the computer resource and to supplant an interface provided by a first adapter of the plurality of access adapters (See Erickson, Fig. 6, Col. 4, lines 32-35, and Col. 5, lines 10-12). Erickson teaches the adapters automatically self configure and failover to redundant adapters. The adapters contain a SCSI enclosure processor, SEP, which detects the failures and the including a plurality of access adapters, this is interpreted wherein the shareable spare adapter is additionally configured to supplant a second interface provided by a second access adapter of the plurality of access adapters without intervention by any server in electronic communication with the computer resource; and

a computer-readable signal bearing recordable media bearing the program (See Erickson, Fig. 6, Col. 2, lines 63-65, Col. 4, lines 32-36, Col. 6, lines 39-53 and Col. 8, lines 42-48).

Erikson does not teach the program further configured to assign a correlation token to each of the plurality of access adapters, each correlation token for use in connection with accessing the computer resource via the access adapter to which such correlation token is assigned, wherein the program is configured to use the shareable spare adapter to supplant the interface provided by the first adapter by reassigning the correlation token assigned to the first access adapter to the shareable spare adapter, however Erickson does teach failover of the adapters using a state transition diagram, where one state is standby and another is active (See Fig. 9, and Col. 6, lines 54-61). Conseil teaches the use of a token stored to a station where one is present and the other absent. Upon the one station becoming non-operation, and therefore unable to access its resources, the other station changes its token from "absent" to "present", thus the token is passed and the other station can perform operations of the non-operational station (See Conseil, Col. 1, lines 39-67). It would be obvious to one of ordinary skill in the art at the time of the invention to combine the token passing of Conseil with the failover of adapters of Erickson. This would be obvious to one of ordinary skill in the art at the time of the invention to do because provides transparent manner of switch to a back-up (See Conseil, Col. 1, lines 26-30).

Response to Arguments

32. Applicant's arguments filed 08 November 2007 have been fully considered but they are not persuasive. The Applicant argues the prior art does not teach assign a correlation token to each of the plurality of access adapters, each correlation token for use in connection with accessing an electronic resource via the access adapter to which such correlation token is assigned, and wherein the control circuitry is configured to initiate a substitution of the shareable spare adapter for the substituted access adapter by reassigning the correlation token assigned to the substituted access adapter to the shareable space adapter. The Examiner respectfully disagrees. Erickson teaches failover of the adapters using a state transition diagram, where one state is standby and another is active (See Fig. 9, and Col. 6, lines 54-61). Conseil teaches the use of a token stored to a station where one is present and the other absent. Upon the one station becoming non-operation, and therefore unable to access its resources, the other station changes its token from "absent" to "present", thus the token is passed and the other station can perform operations of the non-operational station (See Conseil, Col. 1, lines 39-67).

Conclusion

33. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph D. Manoskey whose telephone number is (571) 272-3648. The examiner can normally be reached on Mon.-Fri. (7:30am to 4pm).


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel can be reached on (571) 272-3645. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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JDM
January 18, 2008


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